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REMARKS

This response is intended as a full and complete response to the final Office Action mailed October 28, 2005. In the Office Action, the Examiner notes that claims 1-9 and 14-17 are pending and rejected. By this response, Applicant has herein amended claims 1-3, 5, 7, and 16-17. Claim 4 is hereby cancelled.

In view of both the amendments presented above and the following discussion, Applicant submits that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicant believes that all of the pending claims are now in allowable form.

It is to be understood that Applicant, by amending the claims, does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

REJECTIONS

35 U.S.C. §103

Claims 1-9 and 15-17

The Examiner has rejected claims 1-9 and 15-17 as being obvious and unpatentable under the provisions of 35 U.S.C. §103(a). In particular, the Examiner has rejected claims 1-9 and 15-17 as being unpatentable over Kannas et al. (U.S. Patent No. 6,683,853 B1, hereinafter "Kannas") in view of Puuskari (U.S. Patent 6,728,208 B1, hereinafter "Puuskari"). Applicant respectfully traverses the rejection.

In general, Kannas teaches a system for allocating system resources to provide a selected quality of service in connection with data communications. As taught in Kannas, a mobile user station requests a first quality of service level and, in response to a determination that system resources for providing the first quality of service level are not available, the system assigns resources for providing a second quality of service level. The system monitors the availability of system resources and if system resources for providing the second quality of service level become available, the system allocates

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resources to support the first quality of service level. (Kannas, Abstract). Kannas, however, fails to teach or suggest Applicant's invention of at least claim 1, as a whole.

Applicant agrees that, as stated by the Examiner, Kannas fails to teach or suggest preferred ones of traffic classes in a priority order. Furthermore, Kannas must also fail to teach or suggest a request including a quality of service information element having at least one traffic class field for conveying a request for the preferred ones of traffic classes in the priority order. Thus, Kannas fails to teach or suggest Applicant's invention as a whole. Moreover, Puuskari fails to bridge the substantial gap as between Kannas and Applicant's invention of at least claim 1.

In general, Puuskari teaches a dynamic packet-based quality of service mechanism used within a standard packet data protocol context, such as a standard PDP context. As taught in Puuskari, each data packet is arranged to carry at least one quality of service (QOS) parameter, and scheduling and policing of the transmission of the data packets is made in packet-by-packet basis according to the QOS information in the packets, while within the limits set by the PDP context. The inclusion of QOS fields within data packets for supporting multiple QOS levels, as taught in Puuskari, is simply not negotiation of a variable quality of service between a mobile station and a wireless data network using a single request from the mobile station to the wireless network where the request includes a quality of service information element having at least one traffic class field for conveying the request for preferred ones of traffic classes in said priority order, as taught in Applicant's invention of at least claim 1.

Rather, as taught in Puuskari, the inclusion of QOS fields within data packets for supporting multiple QOS levels is performed after negotiation of a PDP context, and is used to augment the standard PDP context established between a mobile device and the wireless network. The inclusion of QOS fields within data packets for augmenting an existing PDP context with multiple QOS levels, however, clearly has nothing to do with the initial quality of service context negotiation performed between the mobile device and the wireless network. Rather, the Puuskari solution of implementing multiple QOS levels by modifying the data packets associated with the established context provides a solution for overcoming the deficiencies of standard PDP contexts which do not support multiple QOS levels. The solution taught in Puuskari, however, is completely different

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than Applicant's invention of at least claim 1, in which quality of service negotiation is enhanced to support establishing a priority order of traffic classes using a single request from a wireless device to the wireless network.

Furthermore, Puuskari is completely devoid of any teaching or suggestion of negotiating a variable quality of service by issuing a request for preferred ones of traffic classes in a priority order, where the request includes a quality of service information element having at least one traffic class field for conveying the request for preferred ones of traffic classes in said priority order, as taught in Applicant's invention of at least claim 1. Moreover, Puuskari must be completely devoid of any teaching or suggestion of a system in which a variable quality of service is negotiated between a mobile station and a wireless data network, where, during the negotiation, the mobile station issues a request for preferred ones of traffic classes in a priority order, such that each of the prioritized traffic classes may be utilized without requiring additional mobile station transmissions. In fact, throughout Puuskari, Puuskari maintains that the inclusion of quality of service information within each packet is performed without any modification to existing PDP context establishment processes in which each change of a PDP context quality of service requires a separate transaction between the mobile device and the wireless network.

For example, Puuskari specifically teaches that "the scheduling and policing of the transmission of the data packets is made in packet by packet basis according to th[e] QoS information in the packets, while, however, within the limits set by the PDP context." (Puuskari, Col. 4, Lines 18-21). Similarly, for example, Puuskari specifically teaches that "[i]f both the PDP-level QoS Profile and the QoS in each data packet are to be used, the traffic policing may be based on the QoS values related to the PDP context, e.g., based on mean and peak bit rate." (Puuskari, Col. 5, Lines 26-29). Thus, a PDP context negotiated within the Puuskari system only supports a single QOS level which is defined using QOS values such as mean and peak bit rate. This lack of an enhanced PDP context establishment is reiterated throughout Puuskari, especially since Puuskari is direct toward overcoming deficiencies of existing PDP context negotiations. In fact, there is absolutely no teaching or suggestion in Puuskari of any enhancement to the PDP context process, or any other similar process, for supporting negotiation of a

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plurality of quality of service classes, as taught by Applicants' invention of at least claim 1.

As such, Puuskari merely mentions that a single quality of service context may be established between a mobile device and a wireless network. Puuskari is completely devoid of any teaching or suggestion of any negotiating a variable quality of service between a mobile station and a wireless data network where, during the negotiation, the mobile station issues a request for preferred ones of traffic classes in a priority order. As such, Puuskari must be completely devoid of any teaching or suggestion of any means for conveying a request for preferred ones of traffic classes in a priority order, much less a request including a quality of service information element having at least one traffic class field for conveying the request for the preferred ones of traffic classes in a priority order, as taught in Applicant's invention of at least claim 1.

Furthermore, Applicant further submits that even if the Kannas and Puuskari references could be combined, they would merely teach a system in which multiple PDP context transactions between a mobile device and a server (for changing between quality of service settings) are used in conjunction with data transmission techniques in which each data packet includes additional quality of service fields. As such, although the resulting system would support multiple traffic classes, the resulting system would still not teach a system in which a plurality of traffic classes may be established in priority order using a single transaction between a mobile device and a server. The system resulting from the combination of Kannas and Puuskari would still require multiple transactions in order to switching between multiple traffic classes at the established context level.

The use of multiple transactions for switching between multiple traffic classes, as taught in Kannas, even supplemented with transmission of data packets augmented with additional quality of service fields, as taught in Puuskari, still fails to teach or even suggest establishment of a priority order of traffic classes using a single transaction, as taught in Applicant's invention of at least claim 1. In fact, a system combining the teachings of Kannas and Puuskari is completely different from Applicant's invention of at least claim 1, in which a variable quality of service between a mobile station and a wireless data network is negotiated, where, during the negotiation, the mobile station

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issues a request for preferred ones of traffic classes in a priority order, such that each of the prioritized traffic classes may be utilized without requiring additional mobile station transmissions. As such, Kannas and Puuskari, alone or in combination, fail to teach or suggest Applicant's invention of at least claim 1, as a whole.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). For at least the reasons described herein, the Kannas and Puuskari references, alone or in combination, fail to teach or suggest Applicant's invention of at least claim 1, as a whole.

As such, for at least the reasons stated above, the Applicant respectfully submits that independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, independent claims 6, 15, and 16 recite limitations substantially similar to relevant limitations of independent claim 1. Therefore, for at least the reasons discussed above with respect to claim 1, Applicant respectfully submits that independent claims 6, 14, 15, and 16 are also not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

As such, Applicant submits that independent claims 1, 6, 14, 15 and 16 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 2-5, 7-9, and 17 depend directly from independent claims 1, 6, 15, and 16, and recite additional limitations thereof. Therefore, for at least the same reasons set forth above, Applicant submits that these dependent claims are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicant respectfully requests that the Examiner's rejections be withdrawn.

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Claim 14

The Examiner has rejected claim 14 as being obvious and unpatentable under the provisions of 35 U.S.C. §103(a). In particular, the Examiner has rejected claim 14 as being unpatentable over Kannas in view of Puuskari, and further in view of Malmlof (U.S. Patent 6,594,241 B1, hereinafter "Malmlof"). Applicant respectfully traverses the rejection.

For at least the reasons discussed above with respect to independent claim 1, Kannas and Puuskari fail to teach or suggest Applicant's invention as a whole. Namely, Kannas and Puuskari fail to teach or suggest at least the limitations of "a message including a quality of service information element, said element having at least one traffic class field that conveys requests for preferred ones of traffic classes in a priority order," as recited in Applicant's independent claim 14. As such, Applicant submits that Kannas and Puuskari, alone or in combination, also fail to teach or suggest Applicant's invention of at least claim 14. Furthermore, Malmlof fails to bridge the substantial gap as between Kannas and Puuskari and Applicant's invention of at least claim 14.

In general, Malmlof teaches a channel-type switching control system in which, after a mobile user connection is assigned a particular type of channel, a sliding window with a predetermined number of time intervals is established for that connection. In particular, Malmlof teaches that the "associated information may include one or more parameters including the type of channel currently supporting the connection, an amount of data to be transmitted for the mobile user connection, a requested quality of service, etc." (Malmlof, Abstract). Malmlof, however, fails to teach or suggest Applicant's invention as a whole. Namely, Malmlof fails to teach or suggest a message including a quality of service information element, said element having at least one traffic class field that conveys requests for preferred ones of traffic classes in a priority order, as taught in Applicant's invention of at least claim 14.

Rather, Malmlof merely teaches channel type switching decisions, such as switching to a dedicated channel or switching to a common channel. Moreover, Applicant respectfully points out that the Examiner merely relies on Malmlof for teaching the transceiver and processor of Applicant's invention of claim 14. Malmlof is completely devoid of any teaching or suggestion of a message including a quality of service

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information element, said element having at least one traffic class field that conveys requests for preferred ones of traffic classes in a priority order, as taught in Applicant's invention of at least claim 14.

As such, Applicant submits that independent claim 14 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, Applicant respectfully requests that the Examiner's rejections be withdrawn.

SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicant's disclosure than the primary references cited in the Office Action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

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CONCLUSION

Thus, Applicant submits that none of the claims presently in the application are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley at (732) 383-1434 or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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